U.S. Department of Labor

Office of Administrative Law Judges 800 K Street, NW, Suite 400-N Washington, DC 20001-8002

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Issue Date: 24 July 2003

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In the Matter of

NORMA J. MEADOWS, on behalf of, and widow of, Case No.: 2001 BLA 737 DENNIS C. MEADOWS 2001 BLA 738

Claimant

v.

JEWEL RIDGE MINING CORP.

Employer

and

PITTSTON CO.

Carrier

and

DIRECTOR, OFFICE OF WORKERS' COMPENSATION PROGRAMS

Party in Interest

Appearances: Mr. Ron Carson, Personal Representative

For the Claimant

Mr. Timothy W. Gresham, Attorney

For the Employer

Before: Richard T. Stansell-Gamm

Administrative Law Judge

<u>DECISION AND ORDER -</u> <u>DENIAL OF BENEFITS</u>

This matter involves claims filed by Mr. and Mrs. Meadows for benefits under the Black Lung Benefits Act, Title 30, United States Code, Sections 901 to 945 ("the Act"). Benefits are awarded to persons who are totally disabled within the meaning of the Act due to pneumoconiosis, or to survivors of persons who died due to pneumoconiosis. Pneumoconiosis is a dust disease of the lung arising from coal mine employment and is commonly known as "black lung" disease.

Pursuant to Notice of Hearing, dated March 25, 2002 (ALJ I), I opened a hearing on June 25, 2002 in Abingdon, Virginia, attended by Mr. Carson and Mr. Gresham. At that time, Mr. Carson requested a decision on the record; Mr. Gresham did not object. My decision in this case is based on all the documents admitted into evidence: DX 1 to DX 102 and EX 1.

ISSUES

- 1. Length of Coal Mine Employment
- 2. Mrs. Meadows' Survivor Claim
 - A. Whether Mr. Meadows suffered from pneumoconiosis.
 - B. If Mr. Meadows had coal workers' pneumoconiosis, whether his death was due to pneumoconiosis.
- 3. Mr. Meadows' Miner's Claim
 - A. Whether Mr. Meadows suffered from pneumoconiosis.
 - B. If Mr. Meadows had pneumoconiosis, whether his pneumoconiosis was related to coal mine employment.
 - C. Whether Mr. Meadows suffered a totally disabling respiratory impairment.
 - D. If Mr. Meadows was totally disabled, whether his total disability was due to coal workers' pneumoconiosis.

Coal Miner's Background

Born March 19, 1939, Mr. Dennis Meadows married Mrs. Norma Meadows on December 29, 1995 (DX 9, DX 80, and DX 81). Over the course of many years, Mr. Meadows worked as a coal miner for several companies (DX 4, DX 5, and DX 8). His jobs included inside laborer, loader, roof bolter, and eventually mine foreman (DX 8). Mr. Meadows left coal mining about 1976 due to back problems. He also smoked cigarettes at the rate of a half of a pack, or more, per day for at least 40 years. Mr. Meadows passed away on March 13, 2000 (DX 81).

PROCEDURAL BACKGROUND

¹The following notations appear in this decision to identify exhibits: DX - Director exhibit; EX - Employer exhibit; and, ALJ - Administrative Law Judge exhibit.

Mr. Meadows' Disability Claims

First Claim (DX 46)

On February 14, 1977, Mr. Meadows filed a claim for black lung disability benefits with the Social Security Administration. On February 18, 1978, Administrative Law Judge Ronald T. Osborn determined Mr. Meadows was entitled to disability benefits effective April 13, 1976. However, the District Director for the U.S. Department of Labor reconsidered that disability award and denied the claim on June 11, 1980 because Mr. Meadows failed to prove the presence of coal workers' pneumoconiosis or total disability. A few months later, the District Director indicated new tests would be conducted due to missing medical records. Eventually, on July 24, 1981, after considering the additional medical evidence, the District Director determined his initial denial of Mr. Meadows' claim should remain unchanged. Apparently, Mr. Meadows did not appeal the adverse determination.

Second Claim (DX 47)

On July 13, 1983, Mr. Meadows filed his second, or duplicate, claim. On January 9, 1984, the District Director denied the claim because Mr. Meadows failed to prove coal workers' pneumoconiosis, total disability, and a material change in condition. Mr. Meadows did not appeal.

Third, and Present, Claim

On June 24, 1996, Mr. Meadows filed his third, and another duplicate, claim for disability benefits (DX 1). After an informal conference, on March 5, 1997, the District Director determined that although Mr. Meadows was totally disabled by a respiratory impairment, he had not established the presence of coal workers' pneumoconiosis (DX 39). On May 5, 1997, Mr. Meadows requested a hearing (DX 42) and his claim was forwarded to the Office of Administrative Law Judges ("OALJ") for a hearing on June 24, 1997 (DX 48).

The case was then scheduled for a hearing on January 13, 1998; however, due to surgery, Mr. Meadows requested a decision on the record (DX 53). On October 8, 1998, Administrative Law Judge Daniel A. Sarno, Jr., determined Mr. Meadows had seven years of coal mine employment, accepted the Employer's concession that Mr. Meadows was totally disabled due to a respiratory impairment, correspondingly concluded a material change in conditions had been established, and after considering the entire record, denied Mr. Meadows' claim for failure to prove pneumoconiosis (DX 55). Mr. Meadows appealed the denial on November 3, 1998 (DX 56).

Eventually, on November 9, 1999, the Benefits Review Board ("BRB" or "Board") remanded Mr. Meadows' claim back to the Administrative Law Judge and District Director (DX 63). The Board decided Mr. Meadows should receive another pulmonary evaluation because the opinions of

the physicians previously provided by the U.S. Department of Labor for Mr. Meadows' pulmonary examinations had been discredited by the administrative law judge such that Mr. Meadows effectively had not received the full pulmonary evaluation required by the regulations. Due to the misapplication of collateral estoppel, the BRB also set aside Judge Sarno's length of coal mine employment determination and observed that some information in the record, if credible, would establish thirteen year of coal mine employment. Following the BRB's remand to the District Director in January 2000 (DX 64), but prior to another pulmonary examination, Mr. Meadows died on March 13, 2000 (DX 68). On November 3, 2000, a personal representative of Mr. Meadows filed a modification request and attached a medical opinion (DX 70). On April 10, 2001, the District Director denied the modification request because the provided evidence did not demonstrate a change in condition (DX 72). The personal representative appealed the denial and requested a hearing with OALJ on April 16, 2001 (DX 73). The case was forwarded to OALJ on April 26, 2001 (DX 102).

Mrs. Meadows' Survivor Claim

Shortly after her husband's death on March 13, 2000, Mrs. Meadows filed her claim for survivor benefits on May 9, 2000 (DX 74). After consideration of her submissions, the District Director denied her claim on September 9, 2000 (DX 85). Following Mrs. Meadows' appeal of the denial (DX 88), the District Director conducted a formal conference and subsequently, on January 11, 2001, again denied her claim. In response, Mrs. Meadows once again appealed and requested a hearing with OALJ (DX 97). As a result, the District Director forwarded the case to OALJ on April 26, 2001 (DX 100). Pursuant to an August 16, 2001Notice of Hearing, Administrative Law Judge Pamela Wood opened a hearing on November 29, 2001. At that time, since the personal representative had been unable to contact Mrs. Meadows, Judge Wood continued the case. Eventually, in a March 25, 2002 Notice of Hearing, I set a new hearing date of June 25, 2002.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Issue No. 1 - Length of Coal Mine Employment

Mr. Meadows claimed 16 and ½ years of coal mine employment. When considering that claim, Judge Sarno determined his length of coal mine employment was 7 years. Upon review of that determination, the BRB set aside Judge Sarno's finding and noted that if the evidence was found credible, Mr. Meadows might be able to establish 13 years of coal mine employment. In light of the BRB's action setting aside Judge Sarno's findings, I must now ascertain the length of Mr. Meadows' coal mine employment.

The new regulations² provide a complicated formula for establishing a miner's length of coal mine employment. First, 20 C.F.R. § 725.101 (a) (32) indicates that "year" means a calendar year

²Since the remand of Mr. Meadows' claim and Mrs. Meadows' submission of her survivor claim in May 2000, the U.S. Department of Labor has published new regulations concerning black lung disability benefits. Most of the provisions in Part 718 of those new regulations are applicable to both claims.

consisting of either 365 or 366 days, or partial periods totaling one year, during which a miner worked in and around a coal mine for at least 125 working (paid) days. If the miner worked at least 125 days in a calendar year, or "partial periods totaling one year," then he is given credit for one year of coal mine employment, 20 C.F.R. § 725.101 (a) (32) (i). However, if he worked fewer than 125 days in a year, then he receives credit for only a fractional year based on the ratio of number of days actually worked to 125 days, 20 C.F.R. § 725.101 (a) (32) (i). Preferably, the actual length of coal mine employment will be determined based on the actual beginning and ending dates of all periods of coal mine employment to the extent permitted by the evidence, 20 C.F.R. § 725.101 (a) (32) (ii). Such a calculation may be based on all credible evidence, including co-workers affidavits and sworn testimony.³ However, if the evidence is insufficient to establish the beginning and ending dates of a miner's coal mine employment, then the regulations indicate I should divide the miner's yearly income by the coal mine industry's average daily earning for the year as reported by the Bureau of Labor Statistics ("BLS"), 20 C.F.R. § 725.101 (a) (32) (iii).

Based on both the Employer's records and the earnings income report from the Social Security Administration ("SSA"), the duration of Mr. Meadows' coal mine employment with his last employer, Jewell Ridge Mining Corporation ("Jewell Ridge") is readily ascertainable. On December 27, 1971, Mr. Meadows started working for Jewell Ridge, and apparently received his first paycheck in 1972 (DX 4, DX 5, and DX 78). His earning record for 1972 and 1973 shows earned income in all four calendar quarters such that he received two years credit.

Between 1974 and his last earnings with Jewell Ridge in the first calendar quarter of 1977, Mr. Meadows did not earn income in all four calendar quarters of each year (DX 4 and DX 78). Consequently, applying the BLS table (attachment 1), I give Mr. Meadows the following partial credit for his additional coal mine employment with Jewell Ridge.

| Year | Avg. Daily Wage | Company - Yearly Income | Days Worked (Yearly income/ Avg. Daily Wage) | Fraction (Days worked/125 days) - Yearly credit days |
|------|--------------------|----------------------------|--|---|
| 1974 | \$48.64 | Jewell Ridge \$13,198 | 271 | (Greater than 1, so he receives credit for one year) |

³Absence evidence to the contrary, a year of employment under this method is presumed to include 125 working days.

⁴As required by the regulations, I have attached a copy of the BLS data on average daily earnings.

| 1975 | \$59.24 | Jewell Ridge \$14,098 | 237 | (Greater than 1, so he receives credit for one year) |
|------|---------|--------------------------|-----|--|
| 1976 | \$64.07 | Jewell Ridge \$6,991 | 109 | 0.87 317 days |
| 1977 | \$71.90 | Jewell Ridge \$510 | 7 | 0.06 22 days |

Based on these calculations, I conclude that beginning in 1974 through the first quarter of 1977, Mr. Meadows worked another 2 yeas, and 339 days for Jewell Ridge, making his total employment with Jewell Ridge 4 years and 339 days.

Next, concerning one coal company, Jones and Cunningham, Mr. Meadows has presented both his statements about the specific year of coal mine employment and the affidavit of a co-worker to corroborates his claimed length of employment. Specifically, Mr. Meadows states he worked one year for Jones and Cunningham between 1957 and 1958. In an affidavit, a co-worker, Mr. Donald Martin, indicates Mr. Meadows had worked one year with Jones & Cunningham. Based on that combination of evidence, I find Mr. Meadows was employed one year as a coal miner with Jones and Cunningham.

Mr. Meadows also claimed employment with other companies, such as Schaffer Coal (six months) and Fields Coal Company (three years) (DX 46 and DX 47). However, he could not recall the actual years of employment for these companies. Likewise, the co-workers who supplied affidavits applicable to this employment did not state when Mr. Meadows' employment occurred. He also indicated employment with other companies, such as Chaffin Coal (six months in 1956 and 1957) that was not corroborated by co-worker statements. Additionally, each of Mr. Meadows' submissions on his coal mine employment contained varying dates and lengths of employment. Consequently, I consider the remaining portions of Mr. Meadows' varied employment recollections and the nonspecific affidavits insufficient, standing alone, to determine actual periods of coal mine employment with the referenced coal companies. As a result, I turn the SSA record of Mr. Meadows' other coal mine employment income and make the following calculations regarding length of employment.

| Year | Avg. Daily Wage | Company - Yearly Income | Days Worked (Yearly income/ Avg. Daily Wage) | Fraction (Days worked/125 days) - Yearly credit days |
|------|--------------------|----------------------------|--|---|
|------|--------------------|----------------------------|--|---|

| 1958 | \$17.04 ⁵ | Chaffin \$97.98 | 5.75 | 0.05 18.25 days |
|--------|----------------------|-----------------------------------|-------|------------------------------|
| 1961 | \$21.16 | Burks Coal \$272.75 | 12.9 | 0.1 36.5 days |
| (same) | (same) | Miller Coal \$14.22 | 0.7 | (Negligible, one day credit) |
| (same) | (same) | Meadows Coal \$366.50 | 17.3 | 0.15 51 days |
| (same) | (same) | Dye & Meadows Coal \$27.62 | 1.3 | 0.01 3.65 days |
| 1962 | \$21.74 | Meadows Coal \$185.03 | 8.5 | 0.07 25.55 days |
| 1963 | \$22.68 | Meadows Coal \$47.97 | 2.1 | 0.02 7.3 days |
| 1968 | \$30.41 | Belcher Coal \$39.00 | 1.3 | 0.01 3.65 days |
| 1969 | \$34.08 | Anchor Red Ash Coal \$71.20 | 2.08 | 0.02 7.3 days |
| (same) | (same) | Black Watch Coal \$1,000 | 29.34 | 0.23 83.95 days |
| 1971 | \$40.07 | Anchor Red Ash Coal \$1,573.26 | 39.26 | 0.31 113.15 days |
| (same) | (same) | Winston Coal \$527 | 13.15 | 0.11 40.15 days |
| 1973 | \$47.19 | Island Creek Coal \$163 | 3.45 | 0.03 10.95 days |

Having established the calender days that cover the earlier period of Mr. Meadows' coal mining employment, the length of such employment is the cumulative total. In this case, based on the cumulative total set out below, I find that between 1958 and 1973, Mr. Meadows worked just over one year as a coal miner.

| | | Cumulative |
|---------|------------|------------|
| Chaffin | 18.25 days | 18.25 days |
| Burks | 12.90 days | 31.15 days |
| Miller | 1.00 day | 32.15 days |

⁵Absent any evidence of the type of coal Mr. Meadows mined in 1958, I use the lower daily earnings rate associated with the mining of anthracite coal.

| Meadows (1961) | 51.00 days | 83.15 days |
|----------------|-------------|--------------------|
| Dye & Meadows | 3.65 days | 86.80 days |
| Meadows (1962) | 22.55 days | 109.35 days |
| Meadows (1963) | 7.30 days | 116.65 days |
| Belcher | 3.65 days | 120.30 days |
| Anchor (1969) | 7.30 days | 127.60 days |
| Black Watch | 83.95 days | 211.58 days |
| Anchor (1971) | 113.15 days | 324.73 days |
| Winston | 40.15 days | 364.88 days |
| Island Creek | 10.95 days | 1 year, 10.88 days |

Adding this cumulative coal mine employment from 1958 to 1973 with the time Mr. Meadows spent working for Jones and Cunningham and Jewell Ridge, I find Mr. Meadows' total length of coal mine employment is just shy of 7 years (1 year + (1 year, 10.88 days) + (4 years, 339 days)).

I recognize that I have reached the same determination as Judge Sarno (although through a completely different process) which the BRB set aside. As directed by the BRB, I have considered the other evidenced in the record, including Mr. Meadows' declarations and the co-worker affidavits. However, for the reasons discussed above, I consider most of that other information neither particularly credible nor sufficiently probative. Clearly, between about 1961 to 1977, a period of 16 years, Mr. Meadows did work as a coal miner. But, as the more reliable evidence shows, until 1974, Mr. Meadows' employment as a coal miner was both sporadic and, in many years, limited, amounting to no more than a couple of days mining coal.

Issue No. 2 - Mrs. Meadows' Survivor Claim

To obtain benefits under the Act and the implementing regulations, 20 C.F.R. § 718.205 (a), a surviving claimant must prove by a preponderance of the evidence several facts. First, the claimant must establish eligibility as a survivor. A surviving spouse may be considered eligible for benefits under the Act if she was married to, and living with, the coal miner at the time of his death, and has not remarried.⁶

Next, the claimant must prove the coal miner had pneumoconiosis.⁷ "Pneumoconiosis" is defined as a chronic dust disease arising out of coal mine employment. The regulatory definitions include both clinical pneumoconiosis (the diseases recognized by the medical community as pneumoconiosis) and legal pneumoconiosis (defined by regulation as any chronic lung disease arising

⁶20 C.F.R. § 718.4 indicates that the definitions in 20 C.F.R. § 725.101 are applicable. 20 C.F.R. § 725.101, in turn, refers to the term "survivor" as used in Subpart B of Part 725. 20 C.F.R. § 725.214 then sets out the espousal relationship requirements and 20 C.F.R. § 725.215 describes the dependency rules. According to § 725.214 (a) the spousal relationship exists if the relationship is a valid marriage under state law. Under § 725.215(a), a spouse is deemed dependent if she was residing with the miner at the time of his death.

⁷20 C.F.R. § 718.205 (a) (1) and see Trumbo v. Reading Anthracite Co., 17 B.L.R. 1-85 (1993).

out of coal mine employment) 20 C.F.R. § 718.201 (a) (1) and (2). The regulation further indicates that a lung disease arising out of coal mine employment includes "any chronic pulmonary disease or respiratory or pulmonary impairment significantly related to, or substantially aggravated by, dust exposure in coal mine employment." 20 C.F.R. § 718 (b). As courts have noted, under the Act, the legal definition of pneumoconiosis is much broader than medical pneumoconiosis. *Kline v. Director, OWCP*, 877 F.2d 1175 (3d Cir. 1989).

Third, once a determination has been made that a miner has pneumoconiosis, it must be determined whether the coal miner's pneumoconiosis arose, at least in part, out of coal mine employment.⁸ If a miner who is suffering from pneumoconiosis was employed for ten years or more in one or more coal mines, there is a rebuttable presumption that pneumoconiosis arose out of such employment.⁹ Otherwise, the claimant must provide competent evidence to establish the relationship between pneumoconiosis and coal mine employment.¹⁰

Finally, the surviving spouse has to demonstrate the coal miner's death was due to pneumoconiosis.¹¹ For a survivor claim filed on or after January 1, 1982, the Department of Labor regulations provide four means to establish that a coal miner's death was due to pneumoconiosis:¹²

- 1. Death was caused by pneumoconiosis;
- 2. Death was caused by complications of pneumoconiosis;
- 3. Pneumoconiosis was a substantially contributing cause or factor leading to the miner's death. Notably, pneumoconiosis is deemed to be a substantially contributing cause of a miner's death if it hastens the miner's death;¹³ or,
- 4. The miner had complicated pneumoconiosis. 14

⁸20 C.F.R. §§ 718.203 (a) and 718.205 (a)(2).

⁹20 C.F.R. § 718.203 (b).

¹⁰20 C.F.R. § 718.203 (c).

¹¹20 C.F.R. § 718.205 (a)(3).

¹²20 C.F.R. §§ 718.205 (c)(1), (2), and (3), and 718.304.

¹³20 C.F.R. §718.205 (c) (5). Previously, the U.S. Court of Appeals for the Fourth Circuit had adopted the U.S. Department of Labor's position that pneumoconiosis substantially contributes to death if it hastens death in any way. *Shuff v. Cedar Coal Co.*, 967 F.2d 977, 979 (4th Cir. 1992), *cert. denied*, 113 S.Ct. 969 (1993). *See also Lukosevicz v. Director, OWCP*, 888 F.2d 1001, 1006 (3d Cir. 1989) (any condition, such as pneumoconiosis, that hastens a coal miner's death is a "substantially contributing cause").

¹⁴According to 20 C.F.R. § 718.304, if a miner had complicated pneumoconiosis, an irrebuttable (continued...)

However, a survivor may not receive benefits if the coal miner's death was caused by traumatic injury, or the principal cause of death was a medical condition not related to pneumoconiosis, unless evidence establishes that pneumoconiosis was a substantially contributing cause of death.

In summary, a survivor claim filed after January 1, 1982 must meet four primary elements for entitlement. The claimant bears the burden of establishing these elements by a preponderance of the evidence. If the claimant fails to prove any one of the requisite elements, the survivor claim for benefits must be denied. *Gee v. W. G. Moore and Sons*, 9 B.L.R. 1-4 (1986) and *Roberts v. Bethlehem Mines Corp.*, 8 B.L.R. 1-211 (1985). The four elements are: (1) the claimant is an eligible survivor of the deceased miner; (2) the coal miner suffered from pneumoconiosis; (3) the coal miner's pneumoconiosis arose out of coal mine employment; and, (4) the coal miner's death was due to coal workers' pneumoconiosis (caused; complications caused; substantially contributing cause; or complicated pneumoconiosis presumption).

Eligible Survivor

The record establishes that Mrs. Norma Meadows married Mr. Dennis Meadows on December 12, 1995 (DX 9 and DX 80). Further, based on several references in the hospitalization records from 1999 and 2000, to the presence of Mrs. Meadows with her husband, and absent evidence to the contrary, I find Mrs. Meadows was living with Mr. Meadows at the time of his death. Accordingly, Mrs. Meadows has established the first entitlement element.

Presence of Pneumoconiosis

The next entitlement element that Mrs. Meadows must prove is that Mr. Meadows had pneumoconiosis. According to 20 C.F.R. § 718.202, the existence of pneumoconiosis may be established by four methods: chest x-rays (20 C.F.R. § 718.202 (a) (1)), autopsy or biopsy report (20 C.F.R. § 718.202 (a) (2)), regulatory presumption (20 C.F.R. § 718.202 (a) (3)), and medical opinion (20 C.F.R. § 718.202 (a) (4)). Since the record does not contain evidence that Mr. Meadows had complicated pneumoconiosis and both present claims were filed after January 1, 1982, a regulatory presumption of pneumoconiosis is not applicable. Likewise, no biopsy or autopsy evidence has been presented. As a result, Mrs. Meadows will have to rely on chest x-rays and

¹⁴(...continued) presumption exists that his death was due to pneumoconiosis.

¹⁵If any of the following presumptions are applicable, then under 20 C.F.R. § 718.202 (a)(3) a miner is presumed to have suffered from pneumoconiosis: 20 C.F.R. § 718.304 (if complicated pneumoconiosis is present then there is an irrebuttable presumption the miner is totally disabled due to pneumoconiosis); 20 C.F.R. § 718.305 (for claims filed before January 1, 1982, if the miner has fifteen years or more coal mine employment, there is a rebuttable presumption that total disability is due to pneumoconiosis); and 20 C.F.R. § 718.306 (a presumption when a survivor files a claim prior to June 30, 1982).

medical opinion to establish the presence of pneumoconiosis. Additionally, under the guidance of the court in *Compton*, ¹⁶ I must also consider the chest x-rays and medical opinion together to determine whether Mr. Meadows had black lung disease.

Chest X-rays

| Date of x-ray | Exhibit | Physician | Interpretation |
|---------------|---------|-----------------------------|--|
| 10/21/69 | DX 36 | Wolfe, BCR | Clear |
| 04/08/74 | DX 46 | Eryilmaz, BCR ¹⁷ | Positive for pneumoconiosis; profusion 1/1 ¹⁸ , type p opacities ¹⁹ |
| 07/12/77 | DX 40 | Eryilmaz, BCR | Lungs are normal |
| 03/27/81 | DX 46 | Russell | Negative for pneumoconiosis |
| 09/20/83 | DX 47 | Wakat, BCR, B | Negative for pneumoconiosis; profusion $0/1^{20}$; type q opacities; chest shows evidence of nonspecific chronic interstitial pulmonary disease with some obstructive component |

¹⁶See Island Creek Coal Co. v. Compton, 211 F.3d 203 (4th Cir. 2000).

¹⁷B - B Reader; and BCR - Board Certified Radiologist. These designations indicate qualifications a person may possess to interpret x-ray film. A "B Reader" has demonstrated proficiency in assessing and classifying chest x-ray evidence for pneumoconiosis by successful completion of an examination. A "Board Certified Radiologist" has been certified, after four years of study and an examination, as proficient in interpreting x-ray films of all kinds including images of the lungs.

 $^{^{18}}$ The profusion (quantity) of the opacities (opaque spots) throughout the lungs is measured by four categories: 0 = small opacities are absent or so few they do not reach a category 1; 1 = small opacities definitely present but few in number; 2 = small opacities numerous but normal lung markings are still visible; and, 3 = small opacities very numerous and normal lung markings are usually partly or totally obscured. An interpretation of category 1, 2, or 3 means there are opacities in the lung which may be used as evidence of pneumoconiosis. If the interpretation is 0, then the assessment is not evidence of pneumoconiosis. A physician will usually list the interpretation with two digits. The first digit is the final assessment; the second digit represents the category that the doctor also seriously considered. For example, a reading of 1 / 2 means the doctor's final determination is category 1 opacities but he considered placing the interpretation in category 2. Or, a reading of 0 / 0 means the doctor found no, or few, opacities and didn't see any marks that would cause him or her to seriously consider category 1.

¹⁹There are two general categories of small opacities defined by their shape: rounded and irregular. Within those categories the opacities are further defined by size. The round opacities are: type p (less than 1.5 millimeter (mm) in diameter), type q (1.5 to 3.0 mm), and type r (3.0 to 10.0 mm). The irregular opacities are: type s (less than 1.5 mm), type t (1.5 to 3.0 mm) and type u (3.0 to 10.0 mm). JOHN CRAFTON & ANDREW DOUGLAS, RESPIRATORY DISEASES 581 (3d ed. 1981).

²⁰Profusion of 0/1 does not constitute evidence of pneumoconiosis, 20 C.F.R. § 718.102 (b).

| Date of x-ray | Exhibit | Physician | Interpretation |
|---------------|---------|---------------------|--|
| (same) | DX 47 | Gaziano, B | Negative for pneumoconiosis |
| 01/26/94 | DX 43 | Pendergrass, BCR, B | Completely negative for pneumoconiosis |
| (same) | DX 44 | Scott, BCR, B | Negative for pneumoconiosis; emphysema |
| (same) | DX 44 | Wheeler, BCR, B | Negative for pneumoconiosis; moderate hyperinflation compatible with emphysema |
| 04/02/94 | DX 43 | Pendergrass, BCR, B | Negative for pneumoconiosis |
| (same) | DX 44 | Scott, BCR, B | Negative for pneumoconiosis; emphysema |
| (same) | DX 44 | Wheeler, BCR, B | Negative for pneumoconiosis; hyperinflation compatible with emphysema |
| 03/20/95 | DX 44 | Scott, BCR, B | Negative for pneumoconiosis |
| (same) | DX 44 | Wheeler, BCR, B | Negative for pneumoconiosis; hyperinflation lungs compatible with emphysema |
| (same) | DX 45 | Pendergrass, BCR, B | Negative for pneumoconiosis |
| (same) | DX 83 | Ahmed | Positive for pneumoconiosis; profusion ½; type p/p opacities; emphysema |
| (same) | DX 94 | Castle, B | Negative for pneumoconiosis; profusion 0/1; type t/s opacities |
| 01/31/96 | DX 82 | Crawford | No infiltrates or effusions were seen; some mild interstitial fibrosis in the left lung; heart size within normal limits |
| 02/12/96 | DX 43 | Pendergrass, BCR, B | Negative for pneumoconiosis |
| (same) | DX 44 | Scott, BCR, B | Negative for pneumoconiosis |
| (same) | DX 44 | Wheeler, BCR, B | Negative for pneumoconiosis; hyperinflation compatible with emphysema |
| (same) | DX 94 | Castle, B | Negative for pneumoconiosis |
| 07/02/96 | DX 19 | Forehand, B | Negative for pneumoconiosis; profusion 0/1; type s/t opacities |
| (same) | DX 20 | Gaziano, B | Positive for pneumoconiosis; profusion 1/0, type t/s opacities |
| (same) | DX 21 | Cole, BCR, B | Possible lesion left upper lobe |
| (same) | DX 50 | Scott, BCR, B | Negative for pneumoconiosis |

| Date of x-ray | Exhibit | Physician | Interpretation | |
|---------------|---------|---------------------|---|--|
| (same) | DX 50 | Wheeler, BCR, B | Negative for pneumoconiosis | |
| (same) | DX 52 | Fino, B | Negative for pneumoconiosis | |
| 08/30/96 | DX 44 | Scott, BCR, B | Negative for pneumoconiosis | |
| (same) | DX 44 | Wheeler, BCR, B | Negative for pneumoconiosis | |
| (same) | DX 45 | Pendergrass, BCR, B | Negative for pneumoconiosis | |
| (same) | DX 94 | Castle, B | Negative for pneumoconiosis | |
| 12/05/96 | DX 44 | Scott, BCR, B | Negative for pneumoconiosis | |
| (same) | DX 44 | Wheeler, BCR, B | Negative for pneumoconiosis | |
| (same) | DX 45 | Pendergrass, BCR, B | Negative for pneumoconiosis | |
| (same) | DX 82 | Crawford | Lungs appear to be clear; possible mild interstitial fibrosis on the left | |
| (same) | DX 94 | Castle, B | Negative for pneumoconiosis | |
| 12/09/96 | DX 40 | Crawford | Clear lungs | |
| (same) | DX 44 | Scott, BCR, B | Negative for pneumoconiosis | |
| (same) | DX 44 | Wheeler, BCR, B | Negative for pneumoconiosis; hyperinflation with emphysema | |
| (same) | DX 45 | Pendergrass, BCR, B | Negative for pneumoconiosis | |
| (same) | DX 94 | Castle, B | Negative for pneumoconiosis | |
| 12/10/96 | DX 43 | Pendergrass, BCR, B | Completely negative for pneumoconiosis | |
| (same) | DX 44 | Scott, BCR, B | Negative for pneumoconiosis | |
| (same) | DX 44 | Wheeler, BCR, B | Negative for pneumoconiosis | |
| 12/24/96 | DX 82 | Groves | Acute chronic bronchitis superimposed on fibro-emphysematous disease | |
| (same) | DX 44 | Scott, BCR, B | Negative for pneumoconiosis | |
| (same) | DX 44 | Wheeler, BCR, B | Negative for pneumoconiosis; hyperinflation compatible with emphysema | |
| (same) | DX 45 | Pendergrass, BCR, B | Negative for pneumoconiosis | |
| (same) | DX 94 | Castle, B | Negative for pneumoconiosis; profusion 0/1; type t/s opacities | |
| 02/25/97 | DX 37 | Sargent, B | Negative for pneumoconiosis; profusion 0/0 | |

| Date of x-ray | Exhibit | Physician | Interpretation |
|---------------------|---------|--|---|
| (same) | DX 38 | Scott, BCR, B | Negative for pneumoconiosis; hyperinflation lungs compatible with emphysema |
| (same) | DX 38 | Wheeler, BCR, B | Negative for pneumoconiosis |
| (same) | DX 43 | Pendergrass, BCR, B | Negative for pneumoconiosis |
| 04/23/97 | DX 82 | Hassett | No acute abnormalities |
| (same) | DX 94 | Castle, B | Negative for pneumoconiosis |
| 08/29/97 | DX 92 | Cooper | Negative for pneumoconiosis; flattening of diaphragm consistent with obstructive disease |
| (same) | DX 94 | Castle, B | Negative for pneumoconiosis |
| 04/20/98 | DX 82 | Crawford | Lungs appear to be clear; defibrillator noted |
| 03/02/99 | DX 82 | Buck | Lungs are clear; pacemaker in place |
| (same) | DX 94 | Castle, B | Negative for pneumoconiosis |
| 04/09/99 | DX 83 | Wolfe | Advanced COPD with emphysema predominating; normal heart size; pacemaker in place; no active pathology |
| (08/16/99) | DX 82 | Nasreen | Cardiac pacemaker in place; chronic obstructive pulmonary disease changes with no acute cardiopulmonary disease present |
| (same) | DX 94 | Castle, B | Negative for pneumoconiosis |
| 08/19/99 | DX 94 | Castle, B | Negative for pneumoconiosis; |
| 09/17/99 | DX 94 | Castle, B | Negative for pneumoconiosis; lower left pneumonia |
| 02/25/00 | DX 91 | Navani, BCR, B Negative for pneumoconiosis; profusion 0/1; type q/q opacities | |
| 02/25/00 (portable) | DX 94 | Castle, B | Negative for pneumoconiosis |
| 02/29/00 | DX 83 | Coburn | Congestive heart failure |

Of the 28 x-rays of Mr. Meadows' lungs, no dispute exists among the experts who interpreted 24 of the films. Specifically, the physicians and radiologists who evaluated the following chest x-rays found the studies negative for the presence of pneumoconiosis: October 21, 1969, March 27, 1981, September 20, 1983, January 26, 1994, April 2, 1994, January 31, 1996, February 12, 1996, August 30, 1996, December 5, 1996, December 9, 1996, December 10, 1996, December 24, 1996, February 25, 1997, April 23, 1997, August 29, 1997, April 20, 1998, March 2, 1999, April 9, 1999, August 16, 1999, August 19, 1999, September 17, 1999, February 25, 2000, February 25, 2000 (portable)

and February 29, 2000.

Some evidentiary conflict exists regarding the remaining chest x-rays. One physician disagreed with himself on whether the radiographic evidence showed the presence of pneumoconiosis. In the spring of 1974, Dr. Eryilmaz read a chest x-ray, dated April 8, 1974, positive for pneumoconiosis. However, three years later, he interpreted another radiographic study of Mr. Meadows' chest, dated July 2, 1977, as normal. Absent any explanation for his starkly contrasting interpretations, and considering that pneumoconiosis is not curable, I give little probative value to Dr. Eryilmaz's interpretations of April 1974 and July 1977.

Next, Dr. Ahmed read the March 20, 1995 x-ray as positive for pneumoconiosis. However, his sole interpretation is outweighed by the consensus of three dual qualified radiologists, Drs. Scott, Wheeler, and Pendergrass, and by Dr. Castle, a B reader, that the x-ray is negative. Consequently, I find the March 20, 1995 chest x-ray is negative for pneumoconiosis.

Finally, in a similar manner, Dr. Gaziano interpreted the July 2, 1996 chest film positive for pneumoconiosis. Yet, once again, his lone interpretation is outweighed by the consensus of two B readers, Drs. Forehand and Fino, and three dual qualified radiologists, Drs. Cole, Scott, and Wheeler, that the x-ray is negative for pneumoconiosis. As a result, the July 2, 1996 film also does not establish the presence of pneumoconiosis.

In summary, I find all the probative radiographic evidence from October 1969 through Mr. Meadows' death in March 2000 is negative for the presence of pneumoconiosis. Due to the negative findings, Mrs. Meadows is unable to establish the presence of pneumoconiosis in her husband's lungs through chest x-rays.

Medical Opinion

Although Mrs Meadows is unable to demonstrate the presence of pneumoconiosis through the preponderance of the chest x-ray evidence, she may still establish this necessary element of entitlement through the preponderance of the more probative medical opinion. To place the various, and conflicting, medical opinions into perspective and assist in understanding the documentation utilized by various doctors in reaching their conclusions, I will first review the pulmonary function test and arterial blood gas study results in the record.

Pulmonary Function Tests

| Exhibit | Date/ Doctor | Age/ height | FEV ₁ pre ²¹ post ²² | FVC pre post | MVV pre post | %FEV ₁ / FVC pre post | Qualified ² pre post | Comments |
|-----------------|------------------------------|----------------|---|--------------------|--------------------|---|---------------------------------|---|
| DX 46 | Nov 3, 1978 Dr. Swecker | 37 70" | | 3.1 | | | | |
| DX 47 | Sep 13, 1983 | 44 70" | 2.39 | 4.39 | 60 | 54% | No ²⁴ | |
| DX 12 and 82 | Jul 2, 1996 Dr. Forehand | 57 69" | 1.52 1.46 | 2.80 3.04 | 62 58 | 54% 47% | | Invalid per Dr. Michos (DX 13) |
| DX 15 | Aug 26, 1996 Dr. Forehand | 52 69" | 1.34 1.52 | 2.87 3.24 | 53 63 | 47% 47% | Yes ²⁵ Yes | Partially reversible obstruction; valid per Dr. Michos (DX 16) |
| DX 37 | Feb 25, 1997 Dr. Sargent | 57 68" | 1.26 1.46 | 2.66 3.53 | 43 | 47% 41% | Yes ²⁶ | Severe obstructive impairment |
| DX 82 | Aug 5, 1997 Dr. Sahyouni | 58 69" | 1.28 1.34 | 2.52 2.81 | 33 46 | 51% 48% | Yes ²⁷ Yes | Severe obstructive defect |

²¹Test result before administration of a bronchodilator.

²²Test result following administration of a bronchodilator.

 $^{^{23}}$ Under 20 C.F.R. § 718.204 (b) (2) (i), to qualify for total disability based on pulmonary function tests, for a miner's age and height, the FEV₁ must be equal to or less than the value in Appendix B, Table B1 of 20 C.F.R. §718, **and either** the FVC has to be equal or less than the value in Table B3, **or** the MVV has to be equal or less than the value in Table B5, **or** the ratio FEV₁/FVC has to be equal or less than 55%.

 $^{^{24}}$ The qualifying FEV₁ number is 2.31 for age 44 and 70". The associated qualifying FVC and MVV values are 2.89 and 92, respectively.

 $^{^{25} \}text{The qualifying FeV}_1$ number is 2.01 for age 57 and 69". The associated qualifying FVC and MVV values are 2.56 and 81, respectively.

 $^{^{26}} The~qualifying~FEV_{\rm l}$ number is 1.95 for age 57 and 68". The associated qualifying FVC and MVV values are 2.48 and 78, respectively.

 $^{^{27}} The~qualifying~FEV_{\scriptscriptstyle 1}$ number is 2.00 for age 58 and 69". The associated qualifying FVC and MVV values are 2.54 and 80, respectively.

| DW 02 | N. 4 1000 | 50 | 1 17 | 0.74 | 27 | 400/ | x 7 28 | g 1: |
|-------|--------------|-----|------|------|----|------|-------------------|--------------------|
| DX 82 | Nov 4, 1998 | 59 | 1.17 | 2.74 | 37 | 43% | Yes ²⁸ | Severe obstructive |
| | Dr. Sahyouni | 69" | 1.19 | 2.60 | 39 | 46% | Yes | defect |

Arterial Blood Gas Studies

| Exhibit | Date/ Doctor | _P CO ₂ (rest) _P CO ₂ (exercise) | $_{P}O_{2}$ (rest) $_{P}O_{2}$ (exercise) | Qualified ²⁹ | Comments |
|-----------------|-----------------------------|--|---|--------------------------------------|---------------------|
| DX 36 and 46 | Mar 27, 1981 Dr. Witten | 37 38 | 65 72 | No ³⁰ No ³¹ | Hypoxemia at rest |
| DX 47 | Sep 13, 1983 Dr. Swecker | 37 | 77 | No | |
| DX 18 and 82 | Jul 2, 1996 Dr. Forehand | 34 31 | 70 70 | No ³² No ³³ | |
| DX 37 | Feb 25, 1997 Dr. Sargent | 39 | 72 | No ³⁴ | |
| DX 82 | Aug 16, 1999 | 40 | 60 | Yes ³⁵ | |
| DX 92 | Dec 30, 1999 | 64 | 74 | Yes ³⁶ | Supplemental oxygen |

 $^{^{28} \}text{The qualifying FEV}_1$ number is 1.98 for age 59 and 69". The associated qualifying FVC and MVV values are 2.52 and 79, respectively.

 $^{^{29}\}text{To}$ qualify for Federal Black Lung disability benefits at a coal miner's given $_{P}\text{CO}_{2}$ level, the value of the coal miner's $_{P}\text{O}_{2}$ must be equal to or less than corresponding $_{P}\text{O}_{2}$ value listed in the Blood Gas Tables in Appendix C for 20 C.F.R. § 718.

 $^{^{30}}$ For a $_{P}CO_{2}$ value of 37, the qualifying $_{P}O_{2}$ value is equal to or less than 63.

³¹For a _PCO₂ value of 38, the qualifying _PO₂ value is equal to or less than 62.

³²For a _PCO₂ value of 34, the qualifying _PO₂ value is equal to or less than 66.

 $^{^{33}}$ For a $_{P}CO_{2}$ value of 31, the qualifying $_{P}O_{2}$ value is equal to or less than 69.

³⁴For a _PCO₂ value of 39, the qualifying _PO₂ value is equal to or less than 61.

³⁵For a _PCO₂ value between 40 and 49, the qualifying _PO₂ value is equal to or less than 60.

 $^{^{36}}$ For a $_{P}CO_{2}$ greater than 50, the qualifying $_{P}O_{2}$ is any value.

Physician Reports³⁷

Dr. C.E. Swecker (DX 46)

In November 1978, Dr. Swecker conducted a physical examination of Mr. Meadows. According to Mr. Meadows, he worked in the coal mines 12 years and quit following a back injury in 1976. Mr. Meadows struggled with persistent cough and shortness of breath. Upon examination, the physician found normal breath sounds and concluded Mr. Meadows' cardio-pulmonary system was normal.

Dr. Swecker again examined Mr. Meadows in September 1983. Mr. Meadows reported 12 years of coal mine employment and 20 years of cigarette smoking, ½ pack per day. Dr. Swecker diagnosed emphysema and mild chronic bronchitis that was related to Mr. Meadows' exposure to coal dust. (The physician did not provide the medical rationale, as requested by the medical form, for his diagnosis.)

Dr. William M. Blaylock (DX 36)

For five days in April 1992, Dr. Blaylock hospitalized Mr. Meadows for sinus infection and shortness of breath. Mr. Meadows reported smoking one to two packs of cigarettes per day for several years and coal mine employment of 16 and ½ years. Upon examination, Dr. Blaylock heard some expiratory wheezes. The chest x-rays were normal except for COPD (chronic obstructive pulmonary disease). Mr. Meadows was treated with antibiotics, steroids, and oxygen therapy. Upon discharge, Dr. Blaylock diagnosed acute bronchitis and exacerbation of COPD.

Dr. Ezad N. Ahmad (DX 36)

For five days in March 1994, Dr. Ahmad, cardiologist, hospitalized Mr. Meadows for increased shortness of breath. Mr. Meadows had a long history of smoking one and ½ packs of cigarettes a day and he struggled with rheumatoid arthritis. Upon physical examination, Dr. Ahmad heard bilateral rales in the chest. A chest x-ray showed pulmonary vascular congestion and an enlarged heart consistent with congestive heart failure. An EKG indicated premature ventricular ectopy. Upon discharge, Dr. Ahmad diagnosed congestive heart failure, rheumatoid arthritis, cigarette smoking and pneumoconiosis.

Dr. John R. Forehand

³⁷The following physicians' comments are not summarized because they did not address Mr. Meadows' pulmonary condition: Dr. Michael Bible (treatment of arthritis), Dr. Mariano L. King (treatment of ulcer), and Dr. James H. McVay (treatment of osteroarthritis).

(DX 17 and DX 82)

On July 2, 1996, Dr. Forehand, board certified in pediatrics, and allergy and immunology medicine, conducted an examination of Mr. Meadows' pulmonary condition. Mr. Meadows, a coal miner with about 11 and ½ years of coal mining, smoked cigarettes from the 1960s until March 1996 at the rate of one pack a day. He had back injuries in 1974 and 1975 that required surgery. At the time of the examination, Mr. Meadows complained about persistent shortness of breath and chest pain.

Upon physical examination, the chest sounds were normal. The chest x-ray did not disclose the presence of pneumoconiosis; the blood gas study did not show hypoxemia; the EKG was abnormal; and, the pulmonary function test indicated the presence of an irreversible obstructive pattern.³⁸

Based on the examination and test results, Dr. Forehand diagnosed chronic bronchitis and atherosclerotic cardiovascular disease. Both problems were attributable to cigarette smoke. Based on the pulmonary studies, Mr. Meadows was totally disabled and could not return to work as a coal miner. This disability was due to the chronic bronchitis. Mr. Meadows was further physically totally disabled due to his bad back and arthritis.

Dr. J. Dale Sargent (DX 37, DX 49, and DX 51)

On February 25, 1997, Dr. Sargent examined Mr. Meadows who reported a coal mining history of 17 years, with 14 years underground. He stopped mining in 1977 due to a back injury. Mr. Meadows also had smoked cigarettes for 35 to 40 years at the varying rates of ½ to 2 packs a day. He stopped smoking in 1995. In addition to experiencing dull chest pains, Mr. Meadows had shortness of breath upon exertion. His medical history included congestive heart failure.

During the physical examination, Dr. Sargent heard distant breath sounds. The chest x-ray was negative for pneumoconiosis; the EKG was abnormal; the blood gas studies revealed an elevated carboxyhemoglobin level (usually associated with current cigarette smoking);³⁹ and, the pulmonary function test established the existence of a severe obstructive impairment.

Based on this information, Dr. Sargent concluded Mr. Meadows did not have pneumoconiosis. He explained that coal workers' pneumoconiosis usually is characterized by x-ray evidence and an irreversible obstructive and restrictive pulmonary impairment. Whereas, the

³⁸This pulmonary function test was later considered invalid (DX 13). A subsequent, valid pulmonary function test indicated some reversibility in the obstructive pattern (DX 15 and DX 16).

³⁹I note that in an October 1999 examination report, Dr. Metzer reported that Mr. Meadows had stopped smoking cigarettes just six months prior to the examination.

pulmonary impairment due to cigarette smoking usually leads to a purely obstructive breathing defect. In Mr. Meadows' case, his totally disabling impairment was a partially reversible obstructive impairment which indicates the cause is cigarette smoke.

In an October 1997 deposition, Dr. Sargent reviewed the objective medical evidence associated with his examination of Mr. Meadows and restated his opinion that Mr. Meadows does not have pneumoconiosis. While pneumoconiosis is represented by an irreversible obstructive and restrictive impairment, Mr. Meadows has a purely obstructive impairment that responds to bronchodilators. That type of impairment is consistent with lung damage caused by cigarette smoke. Consequently, Mr. Meadows' chronic and totally disabling pulmonary impairment is not related to coal dust exposure during his coal mine employment.

Dr. Sargent also discussed the relationship between pulmonary and heart dysfunction. When heart failure is caused by pulmonary defects, the condition is called cor pulmonale and typically involves right ventricular failure with associated peripheral edema and swelling. On the other hand, left ventricular failure relates to failure of the heart itself. Although Dr. Sargent's clinical examination of Mr. Meadows did not reveal any heart problems, he reviewed a March 31, 1994 echocardiogram. That study indicated Mr. Meadows' right ventricle was normal both in size and function, thereby excluding a diagnosis of cor pulmonale. At the same time, the test did reveal a decrease in the function of the left ventricle, which reflects heart disease. Thus, while Mr. Meadows may be developing congestive heart failure, his cardiac condition is not related to coal dust exposure. He does not have cor pulmonale. In conclusion, Dr. Sargent reiterated that Mr. Meadows does not have either coal workers' pneumoconiosis or a chronic lung disease caused by his exposure to coal dust.

Dr. Gerald G. Blackwell (DX 83)

On October 28, 1998, Dr. Blackwell conducted an echocardiogram on Mr. Meadows as a follow-up evaluation for left ventricular function. That test disclosed: severe left ventricular systolic dysfunction, normal right ventricle size and function, and the presence of a catheter on the right side of the heart.

Dr. D. Christopher Metzer (DX 83 and DX 92)

Upon referral from Dr. Bailey, on October 20, 1999, Dr. Metzer conducted a heart catherization and diagnosed two vessel obstructive coronary artery disease, severely reduced left ventricle systolic function and moderate pulmonary hypertension. During a December 15, 1999 follow-up office visit, Dr. Metzer heard diminished air movement in Mr. Meadows' lungs. However, he did not display any significant congestive heart failure symptoms and appeared to have reasonably compensated for the condition. The doctor diagnosed coronary artery disease with severely reduced

left ventricular systolic function. Dr. Metzer also concluded Mr. Meadows had severe COPD with required constant oxygen supplement. Though Mr. Meadows stopped smoking cigarettes six months earlier, he had "at least a 50-75 pack year history." Considering Mr. Meadows' 17 years of coal mining, Dr. Metzer also stated Mr. Meadows had "possible coal workers' pneumoconiosis."

Dr. Dwight L. Bailey and Dr. Jolanda I. Cook (DX 83, DX 92, and DX 93)

Between July 9, 1997 and February 25, 2000, Dr. Bailey and Dr. Cook treated Mr. Meadows principally for his rheumatoid arthritis. They also occasionally helped him when he had problems with his COPD. Dr. Bailey diagnosed rheumatoid arthritis, COPD, and bronchitis. In July 1997, Mr. Meadows was hospitalized for a couple of days due to chest pain. The admission diagnosis was ventricular fibrillation, coronary artery disease with post myocardial infarction. An echocardiogram showed left ventricular dilation with moderately impaired function. The right side of the heart was normal. During his hospital stay, a defibrillator was installed near Mr. Meadows' heart to address his cardiac arrhythmia. A December 1998 EKG demonstrated the presence of coronary artery disease. On his last visit, on February 25, 2000, Mr. Meadows was struggling with shortness of breath and congestion which caused Dr. Bailey to increase his oxygen supplementation.

Dr. James I. Sahyouni (DX 70, DX 81, DX 82, and DX 92)

Between March 18, 1996 and March 13, 2000, Dr. Sahyouni, board certified in internal medicine,⁴¹ treated Mr. Meadows during periodic office visits and hospitalizations, for numerous ailments, including rheumatoid arthritis, hypertension, and COPD. In the spring and summer of 1996, Mr. Meadows' conditions of congestive heart failure ("CHF"), athererosclerotic heart disease ("ASHD"), and chronic obstructive pulmonary condition ("COPD") were stable.

In October 1996 and January 1997, Mr. Meadows experienced bouts of acute bronchitis. On May 14, 1998 and February 15, 1999, he was also hospitalized for acute bronchitis with an obstructive component and exacerbation of COPD. In mid-August 1999, Mr. Meadows spent another week in the hospital for the same conditions. An echocardiogram indicated an enlarged right ventricle and a "markedly" enlarged left ventricle.

During an August 31, 1999 visit, Mr. Meadows complained about worsening shortness of breath and smothering. Based on an echocardiogram, Dr. Sahyouni observed that Mr. Meadows had an enlarged right ventricle and he diagnosed cor pulmonale. In September 1999, Mr. Meadows continued to weaken and Dr. Sahyouni diagnosed chronic respiratory failure and acute bronchitis. He was hospitalized a few days in mid-September for worsening shortness of breath.

⁴⁰A pack year equals the consumption of one pack of cigarettes a day for one year.

⁴¹I take judicial notice of Dr. Sahyouni's board certification and have attached the board certification.

At the beginningf October 1999, Mr. Meadows returned to the hospital for several days due to shortness of breath and acute bronchitis. On October 17, 1999, he was again hospitalized for a few days and diagnosed (by Dr. Blackwell) with COPD, congestive heart failure, and ischemic cardiomyopathy with left ventricle dysfunction. An October 18, 1999 echocardiogram showed a significantly enlarged left ventricle and an enlarged right ventricle. During this hospitalization, Mr. Meadows had a coronary angiography which dilated the left ventricle. At the time, Dr. Blackwell concluded Mr. Meadows' recurrent hospitalizations were likely due to congestive heart failure and chronic obstructive pulmonary disease in combination.

Although he experienced some improvement from the end of October through most of December, by the end of December 1999, Mr. Meadows returned to the hospital due to shortness of breath and acute bronchitis with an obstructive component. Upon his discharge on January 5, 2000, he was diagnosed with chronic and acute respiratory failure. In his last office visit with Dr. Sahyouni on February 2, 2000, Mr. Meadows experienced additional weakening. Dr. Sahyouni diagnosed chronic respiratory failure rheumatoid arthritis, coronary artery disease, deconditioning, and muscular wasting. A week later, Mr. Meadows was back in the hospital with shortness of breath and high fever. The diagnosis was pneumonia and exacerbation of COPD.

On March 4, 2000, Mr. Meadows was admitted to the Clinch Valley Medical Center with severe respiratory distress. The admission diagnosis included end stage chronic respiratory disease with respiratory failure, and bilateral pneumonia. In the final hospitalization summary, Dr. Sahyouni recounted that over the course of several days, Mr. Meadows' condition deteriorated. An echocardiogram showed some left ventricle dysfunction; the right ventricle was borderline normal with preserved function. Chest x-rays showed the presence of bilateral pneumonia. Eventually, Mr. Meadows was unable to eat and continued to weaken. In the evening of March 13, 2000, he died. Dr. Sahyouni diagnosed acute respiratory failure, advanced ischemic cardiomyopathy with congestive heart failure and COPD.

On March 17, 2000, Dr. Sahyouni signed Mr. Meadows' death certificate. According to the physician, Mr. Meadows passed away on March 13, 2000 as an inpatient due to acute respiratory failure with underlying causes of bilateral pneumonia, COPD, and CWP (coal workers' pneumoconiosis).

In October 2000, Dr. Sahyouni indicated Mr. Meadows "definitely" had COPD and "possibly" pneumoconiosis. Mr. Meadows also had cor pulmonale. As Mr. Meadows' treating physician, Dr. Sahyouni was familiar with his chronic respiratory failure during the last few weeks of his life, which required continuous oxygen therapy. Noting that Mr. Meadows had 17 years of coal mine employment, and that a November 1999 pulmonary function study revealed both obstructive and restrictive breathing defects, Dr. Sahyouni stated the restrictive pattern "could be related to pneumoconiosis."

Dr. James R. Castle (DX 94 and EX 1)

In December 2000, Dr. Castle, board certified in internal medicine and pulmonary disease, conducted an extensive review of the medical evidence in Mr, Meadows' case. The reviewed information included: radiographic evidence from 1969 to 2000; pulmonary and blood gas test results from 1978 to 1999; medical reports from 1972 to March 2000, including the evaluations of Dr. Swecker, Dr. Forehand, Dr. Sargent, and Dr. Sahyouni, multiple echocardiograms, other medical tests, hospitalization records and Mr. Meadows' death certificate.

Dr. Castle observed that Mr. Meadows was exposed to three pulmonary risk factors in his life. First, during 17 years of coal mine employment, Mr. Meadows was exposed to coal dust. Second, Mr. Meadows had an extensive history of cigarette smoking with more than 40 pack years. Third, Mr. Meadows had severe coronary artery disease.

The radiographic evidence failed to establish the presence of coal workers' pneumoconiosis. Clinically, Mr. Meadows did not consistently have the rales and crackles typically associated with a chronic interstitial pulmonary disease such as pneumoconiosis. Instead, the clinical findings indicated the presence of acute and chronic airway obstruction related to broncho spasms and wheezing.

The pulmonary studies showed a moderately severe obstructive impairment without a restrictive component, coupled with elevated lung volumes indicative of gas trapping. These test results are consistent with tobacco smoke induced chronic obstructive pulmonary disease. Also, particularly notable, the obstructive defect did display some reversibility. A pulmonary defect caused by pneumoconiosis usually consists of irreversible obstructive and restrictive patterns. In contrast, cigarette smoke usually causes an obstructive defect that is partially reversible, demonstrates gas trapping, and does not have a restrictive component.

Additionally, the blood gas studies also suggest pneumoconiosis was not the cause of the pulmonary condition because the extent of hypoxemia reported by the tests varied from mild to moderate. That variability is inconsistent with the fixed degree of hypoxemia associated with the irreversible process of pneumoconiosis. Thus, Mr. Meadows was totally disabled due to a respiratory impairment caused both by his long term exposure to cigarette smoke and coronary artery disease.

Dr. Castle did not believe Mr. Meadows suffered with cor pulmonale event though, at times, Mr. Meadows' right ventricle was enlarged. The doctor explained that when Mr. Meadows' heart experienced peak stress, elevated pressures and dilation of the right ventricle occurred. However, that enlargement was not due to a pulmonary condition. Instead, it was caused by the failure of the left side of Mr. Meadows' heart, which in turn caused failure of the left ventricle. Cor pulmonale is defined as the enlargement of the right ventricle without left sided heart failure.⁴² That situation did not occur in Mr. Meadows' case.

⁴²See also, 20 C.F.R. § 718.204 (b) (1) (iii), which indicates a miner is considered totally disabled if he has cor pulmonale with right-sided congestive heart failure (emphasis added).

Mr. Meadows' death was caused by respiratory failure due to bilateral pneumonia, complicated by severe tobacco smoke-induced COPD and severe coronary artery disease with the resultant congestive heart failure. Mr. Meadows' exposure to coal dust during his coal mine employment played no role in his death.

In an October 2001 deposition, Dr. Castle further explained his rationale for concluding that Mr. Meadows did not have coal workers' pneumoconiosis or any other form of pneumoconiosis. While recognizing that coal dust exposure was one of the pulmonary risks for Mr. Meadows, Dr. Castle highlighted several aspects of his medical record that indicated a diagnosis of pneumoconiosis was not warranted. In addition to the absence of any radiographic evidence of the disease, the pulmonary function tests revealed a moderately severe, yet reversible, obstruction, with normal diffusion and without a restrictive pattern. Although coal dust exposure can cause a chronic pulmonary obstruction, such a defect would not be reversible and is usually accompanied by a restrictive defect. Mr. Meadows' blood gas studies also showed variability from normal to mild to moderate hypoxemia; with the worse conditions occurring during his episodes of heart failure. If Mr. Meadows' pulmonary obstruction had been due to coal dust, Dr. Castle would expect to see fixed, rather than varied, blood gas studies. Coal workers' pneumoconiosis is a progressive disease which may develop long after a person leaves coal mining. However, Mr. Meadows' worsening breathing deficiencies are more consistent with his long term, and continuing, exposure to cigarette smoke rather than coal dust.

Mr. Meadows had three significant problems with his heart. First, he had coronary artery disease which involves the narrowing and blocking of the heart's arteries by fatty deposits and plagues. This restriction of the blood vessels reduces blood flow to the heart and impairs the ability of the heart muscle to function. This functional impairment leads to Mr. Meadows' second heart ailment - congestion.

Heart congestion occurs when due to a lack of blood supply, the cardiac muscles lose their ability to pump blood. Mr. Meadows' heart lost between 20 to 30% of its ability to function. In turn, this loss of function causes the blood to build within the heart, increasing pressure in the left side of the heart, which pumps blood into the bod. Eventually, this increased pressure also builds in the lungs and then in the right side of the heart. At that point, the increased fluid pressure in the lungs causes the individual to experience shortness of breath. Echocardiograms demonstrate that Mr. Meadows was experiencing left-sided heart failure that was diagnosed as congestive heart failure. That condition was partly responsible for his breathing impairment.

Mr. Meadows' third heart issue was cardiac arrhythmia, or irregular heart contractions. A device was implanted to shock his heart whenever a deadly arrhythmia occurred. The device functioned properly on several occasions.

Dr. Castle reiterated that Mr. Meadows did not have cor pulmonale. Cor pulmonale occurs when something goes wrong in the lungs such that the pulmonary pressure builds and eventually stresses the right side of the heart, which pumps blood out of the lungs. This condition leads to right-

sided heart congestion. Again, Mr. Meadows' multiple echocardiograms establish that his cardiac failure was occurring on the left side of his heart and not the right portion.

Although Mr. Meadows was totally disabled prior to his death, he did not have coal workers' pneumoconiosis. Even if he had never mined coal, Mr. Meadows would still have suffered the same type and degree of respiratory impairment. Additionally, Mr. Meadows' cardiac condition was unrelated to his coal mine employment.

Mr. Meadows' cause of death was respiratory failure due to bilateral pneumonia. Coal workers' pneumoconiosis played no role in his death. Mr. Meadows would have died at the same time and in the same manner even if he had never been exposed to coal dust.

Having reviewed Dr. Sahyouni's medical notes and October 2000 assessment, Dr. Castle discussed his disagreement with that physician's conclusions, including his inclusion of pneumoconiosis as a contributing factor in Mr. Meadows' death. Fundamentally, for the multiple reasons previously discussed, Dr. Castle concluded Mr. Meadows did not have pneumoconiosis. He observed that prior to Mr. Meadows' death, Dr. Sahyouni likewise never actually diagnosed pneumoconiosis. To support his death certificate conclusion, Dr. Sahyouni referred to a restrictive breathing pattern demonstrated by a November 1999 pulmonary function test. However, the latest pulmonary function test in the medical record is dated November 1998 and does not indicate a restrictive component to Mr. Meadows' impairment. Finally, Dr. Castle clearly disagreed with Dr. Sahyouni's diagnosis of cor pulmonale because Mr. Meadows' heart failure occurred on the left side.

Discussion

Since Dr. Blaylock and Dr. Blackwell did not express any opinion on whether Mr. Meadows had black lung disease, their assessments, while providing important pulmonary and cardiac information, are not probative on this particular issue. The remaining members of the medical community disagreed on whether Mr. Meadows had coal workers' pneumoconiosis. In light of that conflicting medical opinion, I must first assess the relative probative weight of each medical evaluation and then determine whether Mrs. Meadows is able to carry her burden of proving the presence of pneumoconiosis by the preponderance of the probative medical opinion. The two factors I consider in evaluating relative probative weight of medical opinions are: a) documentation, and b) reasoning.

As to the first factor, a physician's medical opinion is likely to be more comprehensive and probative if it is based on extensive objective medical documentation such as radiographic tests and physical examinations. *Hoffman v. B & G Construction Co.*, 8 B.L.R. 1-65 (1985). In other words, a doctor who considers an array of medical documentation that is both long (involving comprehensive testing) and deep (includes both the most recent medical information and past medical tests) is in a better position to present a more probative assessment than the physician who bases a diagnosis on a test or two and one encounter. Finally, in light of the extensive relationship a treating physician may have with a patient, the opinion of such a doctor may be given greater probative weight than the

opinion of a non-treating physician. See Downs v. Director, OWCP, 152 F.3d 924 (9th Cir. 1998).

The second factor affecting relative probative value, reasoning, involves an evaluation of the connections a physician makes based on the documentation before him or her. A doctor's reasoning that is both supported by objective medical tests and consistent with all the documentation in the record, is entitled to greater probative weight. *Fields v. Island Creek Coal Co.*, 10 B.L.R. 1-19 (1987). Additionally, to be considered well reasoned, the physician's conclusion must be stated without equivocation or vagueness. *Justice v. Island Creek Coal Co.*, 11 B.L.R. 1-91 (1988).

With these principles in mind, I first give little probative weight to the conclusions of Dr. Swecker and Dr. Ahmad that Mr. Meadows had coal workers' pneumoconiosis for the same reasoning deficiency - neither doctor provided any reasoning. After his second pulmonary examination of Mr. Meadows in 1983, Dr. Swecker concluded the chronic bronchitis was related to coal dust, which would be considered pneumoconiosis. Unfortunately, Dr. Swecker failed to provide the medical rationale for his conclusion as requested by the medical form. As a result, I am unable to determine how Dr. Swecker reached his conclusion and was able to eliminate cigarette smoke as a cause of the bronchitis. Likewise, I am unable to attribute probative weight to Dr. Ahmad's diagnosis because in his March 1994 discharge summary he simply included pneumoconiosis as a part of his diagnosis without any supporting explanation.

Dr. Metzer's conclusion that Mr. Meadows had pneumoconiosis also suffers in terms of reasoning and correspondingly has diminished probative value. Upon completion of his cardiac evaluation of Mr. Meadows, Dr. Metzer stated Mr. Meadows had "possible coal workers' pneumoconiosis." That statement is equivocal. "Possible" pneumoconiosis is an insufficient medical diagnosis to support a finding of black lung disease. Dr. Metzer also appears to base his diagnosis solely on the length of coal mine employment, without explaining how the duration of coal dust exposure, by itself, relates to Mr. Meadows' pulmonary condition. Further, Dr. Metzer's use of 17 years of coal mine employment further undermines the probative value of his opinion because I have determined that Mr. Meadows mined coal for 7 years.

In concluding that Mr. Meadows does not have pneumoconiosis, Dr. Forehand also stumbles on the reasoning requirement. In a manner similar to Dr. Swecker, his terse statements on the pulmonary evaluation form provide an insufficient explanation for how he was able to eliminate coal dust as a possible cause of Mr. Meadows' breathing impairment. Due to this reasoning deficiency, I give his assessment little probative weight.

In contrast to the medical opinions just discussed, Dr. Sargent presented a reasoned opinion that Mr. Meadows did not have pneumoconiosis. While most of his comments tend to focus on medical pneumoconiosis, Dr. Sargent also discussed how he was able to conclude that Mr. Meadows' reversible obstructive pulmonary impairment was not related to his coal dust exposure. At the same time, Dr. Sargent based his conclusions on Mr. Meadows' pulmonary condition in 1997. Consequently, in terms of documentation, his opinion is somewhat less probative than the better documented assessments of Dr. Sahyouni and Dr. Castle who were aware of the progression of Mr.

Meadows' pulmonary impairment through the end of his life.

In terms of documentation, both Dr. Sahyouni and Dr. Castle have separate, and distinct, advantages that essentially offset any probative advantage one opinion may have over the other for this factor. As both Mr. Meadows' treating physician and the attending doctor when he passed away, Dr. Sahyouni had the benefit of intense and extensive patient contact. Having never even examined Mr. Meadows, Dr. Castle lacked that personal contact. On the other hand, in extensive treatment and hospital notes, Dr. Sahyouni commemorated his observations from his contact with Mr. Meadows, which enabled Dr. Castle to essentially obtain most of the same information. In turn, Dr. Castle had a documentary advantage over Dr. Sahyouni because he reviewed the entire medical record in this case; whereas, Dr. Sahyouni appears to base his assessment just on the documentation he developed treating, and attending to, Mr. Meadows. In other words, Dr. Sahyouni's documentation may have greater depth, but that advantage is offset both by breadth of Dr. Castle medical record review and his consideration of Dr. Sahyouni's treatment and hospitalization notes.

Turning to consideration of reasoning, I do find a sufficient discrimination factors to ultimately conclude that Dr. Castle's opinion is better reasoned, and consequently more probative, than Dr. Sahyouni's conclusion. The essential reasoning difference between these two physicians is the certitude of their diagnoses. After presenting a detailed explanation of aspects of Mr. Meadows' medical record that enabled him to distinguish between coal dust and cigarette smoke as the cause of Mr. Meadows' obstructive breathing impairment, Dr. Castle expressed no hesitation or reservation in concluding Mr. Meadows did not have coal workers' pneumoconiosis.

In contrast, Dr Sahyouni's presented his diagnosis of coal workers' pneumoconiosis in equivocal terms. When explaining his notation on Mr. Meadows' death certificate that coal workers' pneumoconiosis was a contributing factor in his death, Dr. Sahyouni stated Mr. Meadows "definitely" had COPD (which Dr. Sahyouni did not state was related to coal dust exposure) and "possibly" pneumoconiosis. He further supported his "possibly" diagnosis by noting the restrictive pattern in a pulmonary function test "could be related" to pneumoconiosis. As I previously discussed when considering Dr. Metzer's diagnosis of coal workers' pneumoconiosis, such equivocal terms in association with a diagnosis diminishes the probative value of that assessment.

Dr. Sahyouni's hesitation, or uncertainty, about a pneumoconiosis diagnosis is not surprising considering the absence any notation of pneumoconiosis by Dr. Sahyouni in his extensive treatment and hospitalization records. Prior to Mr. Meadows' death and completion of the death certificate, Dr. Sahyouni never diagnosed pneumoconiosis. This absence of a pneumoconiosis diagnosis is most noticeable in the final hospitalization summary prepared by Dr. Sahyouni describing Mr. Meadows' final days. In that final discharge summary, Dr. Sahyouni reported Mr. Meadows had bilateral pneumonia, acute respiratory failure, and COPD. Understandably, these three severe, and ultimately fatal, conditions were listed by Dr. Sahyouni on Mr. Meadows' death certificate. Yet, the fourth significant factor associated by Dr. Sahyouni with Mr. Meadows' death on the death certificate, coal workers pneumoconiosis, was not even mentioned, or noted, by Dr. Sahyouni in the hospital discharge summary.

Dr. Sahyouni's reasoning also adversely affected by his reliance on a length of coal mine employment of 17 years and a restrictive breathing pattern revealed in a November 1999 pulmonary function test. Again, as also previously discussed, the use of 17 years of coal dust exposure to support a diagnosis of coal workers' pneumoconiosis is inconsistent with my determination that Mr. Meadows had 7 years of coal mine employment. And, as noted by Dr. Castle, the record does not contain a November 1999 pulmonary function test showing a restrictive component. The most recent pulmonary function test, November 1998, according to Dr. Castle, does not indicate a restrictive impairment.

I have considered that Dr. Castle's reasoning also is not flawless. He did spend a substantially portion of his analysis addressing medical pneumoconiosis. However, he also highlighted the absence of a fixed impairment, a significant characteristic of pneumoconiosis, both medical and legal, in both the pulmonary function tests and arterial blood gas studies as the essential differentiating factor between coal dust and cigarette smoke as the cause of Mr. Meadows' pulmonary condition.

Consequently, in terms of relative probative weight, I find Dr. Castle's well documented opinion that Mr. Meadows did not have coal workers' pneumoconiosis is the best reasoned medical opinion in the record, which is most consistent with all the objective medical evidence, and outweighs Dr. Sahyouni's well documented, contrary determination.

Since I have determined that Dr. Castle's medical opinion has the greater probative weight, the preponderance of the more probative medical opinion in the record establishes that Mr. Meadows did not have coal workers' pneumoconiosis. As a result, Mrs. Meadows is unable to establish the presence of pneumoconiosis through medical opinion.

CONCLUSION

All the chest x-rays in the record and the preponderance of the more probative medical opinion fail to establish the presence of coal workers' pneumoconiosis.⁴³ Since an essential element of entitlement in both Mr. Meadows' disability claim and Mrs. Meadows' survivor claim is the presence of black lung disease in Mr. Meadows' lungs, and neither chest x-rays nor preponderance of the more probative medical opinion support such a finding, both claims must be denied.

ORDER

⁴³Since neither the chest x-rays nor the preponderance of medical opinion establishes the presence of pneumoconiosis, consideration of both chest x-rays and medical opinion together, as required by the court in *Compton*, does not alter the outcome.

The disability claim of MR. DENNIS C. MEADOWS and the survivor claim by MRS. NORMA J. MEADOWS are **DENIED**.

SO ORDERED:

ARICHARD T. STANSELL-GAMM Administrative Law Judge

Date Signed: July 24, 2003

Washington, D.C.

NOTICE OF APPEAL RIGHTS: Pursuant to 20 C.F.R. § 725.481, any party dissatisfied with this Decision and Order may appeal it to the Benefits Review Board within 30 days from the date this decision is filed with the District Director, Office of Worker's Compensation Programs, by filing a notice of appeal with the Benefits Review Board, ATTN.: Clerk of the Board, Post Office Box 37601, Washington, DC 20013-7601. See 20 C.F.R. § 725.478 and § 725.479. A copy of a notice of appeal must also be served on Donald S. Shire, Esquire, Associate Solicitor for Black Lung Benefits. His address is Frances Perkins Building, Room N-2117, 200 Constitution Avenue, NW, Washington, DC 20210.

Attachment 1

COAL MINE (BLBA) PROCEDURE MANUAL

AVERAGE EARNINGS OF EMPLOYEES IN COAL MINING

| <u>Year</u> | Yearly (125 days) | Daily |
|-------------|-------------------|--------------|
| 1999 | \$19,340.00 | \$154.72 |
| 1998 | 19,160.00 | 153.28 |
| 1997 | 19,010.00 | 152.08 |
| 1996 | 18,740.00 | 149.92 |
| 1995 | 18,440.00 | 147.52 |
| 1994 | 17,760.00 | 142.08 |
| 1993 | 17,260.00 | 138.08 |
| 1992 | 17,200.00 | 137.60 |
| 1991 | 17,080.00 | 136.64 |
| 1990 | 16,710.00 | 133.68 |
| 1989 | 16,250.00 | 130.00 |
| 1988 | 15,940.00 | 127.52 |
| 1987 | 15,750.00 | 126.00 |
| 1986 | 15,390.00 | 123.12 |
| 1985 | 15,250.00 | 122.00 |
| 1984 | 14,800.00 | 118.40 |
| 1983 | 13,720.00 | 109.76 |
| 1982 | 12,698.75 | 101.59 |
| 1981 | 12,100.00 | 96.80 |
| 1980 | 10,927.50 | 87.42 |
| 1979 | 10,878.75 | 87.03 |
| 1978 | 10,038.75 | 80.31 |
| 1977 | 8,987.50 | 71.90 |
| 1976 | 8,008.75 | 64.07 |
| 1975 | 7,405.00 | 59.24 |
| 1974 | 6,080.00 | 48.64 |
| 1973 | 5,898.75 | 47.19 |
| 1972 | 5,576.25 | 44.61 |
| 1971 | 5,008.75 | 40.07 |
| 1970 | 4,777.50 | 38.22 |
| 1969 | 4,261.25 | 34.09 |
| 1968 | 3,801.25 | 30.41 |
| 1967 | 3,662.50 | 29.30 |
| 1966 | 3,438.75 | 27.51 |
| 1965 | 3,222.50 | 25.78 |
| 1964 | 3,031.25 | 24.25 |
| 1963 | 2,835.00 | 22.68 |
| 1962 | 2,717.50 | 21.74 |
| 1961 | 2,645.00 | 21.16 |
| | | |

| | Bituminous | | | Anthracite |
|-------------|-------------------|--------------|---------------|-------------------|
| Year | Yearly | Daily | <u>Yearly</u> | Daily |
| 1960 | \$2,687.50 | \$21.50 | \$2,266.25 | \$18.13 |
| 1959 | 2,661.25 | 21.29 | 2,183.75 | 17.47 |
| 1958 | 2,415.00 | 19.32 | 2,130.00 | 17.04 |
| 1957 | 2,581.25 | 20.65 | 2,172.50 | 17.38 |
| 1956 | 2,472.50 | 19.78 | 2,083.75 | 16.67 |
| 1955 | 2,275.00 | 18.20 | 1,935.00 | 15.48 |
| 1954 | 2,022.50 | 16.18 | 1,775.00 | 14.20 |
| 1953 | 2,097.50 | 16.78 | 1,695.00 | 13.56 |
| 1952 | 1,880.00 | 15.04 | 1,750.00 | 14.00 |
| 1951 | 1,915.00 | 15.32 | 1,692.50 | 13.54 |
| 1950 | 1,633.75 | 13.07 | 1,553.75 | 12.43 |
| 1949 | 1,465.00 | 11.72 | 1,447.50 | 11.58 |
| 1948 | 1,691.25 | 13.53 | 1,342.50 | 10.74 |
| 1947 | 1,606.25 | 12.85 | 1,262.50 | 10.10 |
| 1946 | 1,362.50 | 10.90 | 1,060.00 | 8.48 |
| 1945 | 1,315.00 | 10.52 | 876.25 | 7.01 |
| 1944 | 1,267.50 | 10.14 | 733.75 | 5.87 |
| 1943 | 1,057.50 | 8.46 | 648.75 | 5.19 |
| 1942 | 857.50 | 6.86 | 705.00 | 5.64 |
| 1941 | 750.00 | 6.00 | 657.50 | 5.26 |
| 1940 | 617.50 | 4.94 | 648.75 | 5.19 |
| 1939 | 598.75 | 4.79 | 705.00 | 5.64 |
| 1938 | 525.00 | 4.20 | 657.50 | 5.26 |
| 1937 | 585.00 | 4.68 | 693.75 | 5.55 |
| 1936 | 552.50 | 4.42 | 703.75 | 5.63 |
| 1935 | 478.75 | 3.83 | 707.50 | 5.66 |
| 1934 | 450.00 | 3.60 | 750.00 | 6.00 |
| 1933 | 375.00 | 3.00 | 717.50 | 5.74 |
| 1932 | 362.50 | 2.90 | 726.25 | 5.81 |
| 1931 | 455.00 | 3.64 | 801.25 | 6.41 |
| 1930 | 560.00 | 4.48 | 875.00 | 7.00 |
| 1929 | 647.50 | 5.18 | 863.75 | 6.91 |
| 1928 | 671.25 | 5.37 | 912.50 | 7.30 |
| 1927 | 723.75 | 5.79 | 925.00 | 7.40 |
| 1926 | 717.50 | 5.74 | 1,062.50 | 8.50 |
| 1925 | 713.75 | 5.71 | 1,065.00 | 8.52 |
| 1924 | 811.25 | 6.49 | 1,058.75 | 8.47 |
| 1923 | 925.00 | 7.40 | 1,007.50 | 8.06 |
| 1922 | 582.50 | 4.66 | 907.50 | 7.26 |
| 1921 | 905.00 | 7.24 | 933.75 | 7.47 |
| 1920 | 817.50 | 6.54 | 888.75 | 7.11 |

Attachment No. 2

American Board of Medical Specialties«

Certification:

James I. Sahyouni, MD

Certified by: The American Board of Internal Medicine:

Internal Medicine

American Board of Medical Specialties 1007 Church Street, Suite 404 | Evanston, IL 60201-5913 Phone Verification (866) ASK-ABMS Phone: (847) 491-9091 | Fax: (847) 328-3596 Copyright 2000 American Board of Medical Specialties